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PULMONARY VENOUS FLOW AS ASSESSED BY TRANSESOPHAGEAL ECHOCARDIOGRAPHY INDEPENDENTLY PREDICTS MORTALITY IN PATIENTS WITH DILATED CARDIOMYOPATHY. A THIRTEEN YEAR FOLLOW-UP STUDY

ACC Moderated Poster Contributions
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Background: Pulmonary venous flow (PVF), optimally studied during transesophageal echocardiography is a better index of diastolic restricted physiology in dilated cardiomyopathy (DCM) but it's not known if it has an incremental value over the more established prognosticators such as LV ejection fraction (LVEF) and peak VO2 in the long term.

Methods: This study included 122 patients (pts) with DCM (92 males, 58±11 years, LVEF= 28%±6), stable and in sinus rhythm. All pts underwent transesophageal echocardiography with color guided pulsed wave Doppler recording of PVF and transmitral flow; peak systolic and diastolic PVF wave ratio (S/D), E and A mitral wave ratio (E/A), mitral E deceleration time and the time difference between PVF atrial reversal (Ar) and mitral A wave duration (A) were measured. Others parameters attained were: LVEF, inspiratory collapse of the inferior vena cava, mitral regurgitation peak VO2, creatininemia. Cardiac events were defined as death or heart transplantation.

Results: During the follow-up period (mean 13.5± 0.8 years) 81 pts (66%) had events; no pts were lost to follow-up. A 4-strata composite variable (high risk) attained by both LVEF (worse category= LVEF< 25%) and LV diastolic function (worse category= S/D ratio<1 or S/D≥1 and Ar-A >0) was the best predictor of hard events (see table). Other Doppler indices of diastolic function were not significant at the multivariate analysis.

Conclusion: In the long term PVF and LVEF are the best predictors of outcome in pts with DCM.

Parameter	Pr>ChiSquare	Hazard Ratio	Hazard ratio 95% CI
High risk 2 FE≥25% and (S/D<1 or S/D >=1 and Ar-A>0)	0.0127	2.460	1.212-4.994
High risk 3 FE<25% and (S/D>1 and Ar-A>0)	0.0009	3.749	1.717-8.187
High risk 4 FE<25% and (S/D<1 or S/D >=1 and Ar-A>0)	<0.001	5.118	2.526-10.370
PeakVO2 (worse category: <14 ml Kg-1 min-1)	0.0019	2.160	1.327-3.514
Creatininemia	0.0139	2.256	1.180-4.312
Etiology (worse category: ischemic DCM)	0.0150	1.788	1.119-2.857
% inferior vena cava collapse	0.0493	1.730	1.002-2.989
Cardiac resyncronization therapy	0.0012	0.440	0.267-0.724